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ABSTRACT OF THE DISCLOSURE

A method for I/O mismatch calibration of a transmitter. First, a discrete-time signal is generated. Next, a corrected signal based on the discrete-time signal and a set of correction parameters A_n and B_n is obtained. Next, the corrected signal is converted to an analog corrected signal. Next, I/Q modulation is applied to the analog corrected signal and outputs a modulated Next, a first, second, and third desired component measures and a first, second, and third image component measures with the first, second and third sets of the correction parameters A_p and B_p are respectively obtained from the modulated signal. Next, a fourth and fifth set of correction parameters A_{p} and B_{p} are obtained based on the first, the second, and the third desired component measures as well as the first, the second, and the third image component measures. Next, a fourth desired component measure and a fourth image component measure with the fourth set of correction parameters Ap and Bp and a fifth desired component measure and a fifth image component measure with the fifth set of correction parameters A_p and B_p are obtained from the modulated signal. Finally, a final set of the correction parameters An and Bn are selected from the fourth and fifth sets of correction parameters.